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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,027	02/19/2002	Gennady Ruderman	V0077/7223	6406

7590 10/29/2004

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EXAMINER

PEAVEY, ENOCH E

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,027

Applicant(s)

RUDERMAN, GENNADY

Examiner

Enoch E Peavey

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

I. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

A. Claims 1-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Hubler, US No. 3,666,276. Hubler discloses a sealing device comprising a shaft seal (5a) having a sealing portion and a support portion (FIG. 2). The sealing portion is constructed and arranged to sealingly engage with a shaft and allow the shaft to be at least one of slidingly and rotationally moved relative to the sealing portion (FIG. 2). There is a seal mount (22) having a first end (12), a second end (13) and a flexible member (6a) between the first (12) and second ends (13) that enable movement of the first end relative to the second end in at least one degree of freedom (via flexible connecting bellows portion). The first end (12) is sealingly engageable to at least a portion of the support portion (3a) of the shaft seal (5a). The second end (13) is sealingly engageable to an engagement surface (2a) about a port into a process chamber (FIG. 2).

B. The flexible member defines a transition space in a first zone P1, which is in fluid communication with the *vacuum* process chamber (defined by the interior of 2a). The port comprises a central axis and the flexible member (6a) allows movement of the shaft

Art Unit: 3676

(1a) seal in at least two degrees of freedom relative to the central axis of the port (FIG. 2). The port has a port size (13) substantially larger than the shaft size (outer diameter of 1a), which extends through the port (FIG. 2). The shaft may be angularly or laterally off set with respect to a central axis of the seal device (via its flexible bellows. The sealing portion of the shaft seal sealingly engages with a cylindrical-shaped portion of the shaft. The support portion of the shaft (1a) is substantially rigid and constructed of metal or PTFE (Col. 2, line 31). The flexible member may be rubber or an elastomer. The flexible member includes a plurality of undulations forming a bellows portion (FIG. 2). There is a first retaining ring constructed and arranged to sealingly engage a first end of the flexible member to the shaft. An o-ring is positioned between the first retaining ring and the shaft seal. There is a second retaining ring (13) constructed and arranged to sealingly engage a second end of the flexible member to an engagement surface of the process chamber (interior of 2a). There is a second o-ring positioned between the second retaining ring (13) and the engagement surface (2a). The flexible member (6a) includes a flexible collar (portion connecting the bellows and 13). The device is fluidly connectable to a vacuum source (Col. 4, line 41).

The fact that the seal arrangement may be used with a shaft in a vacuum environment isn't given any patentable weight.

Response to Arguments

II. Applicant's arguments filed 27 September 2004 have been fully considered but they are not persuasive. Applicant argues that the device of Hubler is insufficient for

Art Unit: 3676

maintaining a vacuum seal of a shaft having two or more degrees of movement.

Examiner does not concede this assertion. Applicant is arguing limitations that have not been positively claim. If applicant wishes to rely on these distinctions, Examiner suggest positively claiming the shaft and vacuum environment instead of relying on the intended use language as presently presented.

Further applicant has not structurally differentiated the invention of the instant application from the Hubler reference; therefore Hubler is considered to be capable of imparting the same functions.

III. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enoch E Peavey whose telephone number is 305 1977. The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on (703) 306-4115. The fax phone numbers for the organization where this application or proceeding is assigned are 305 3597 for regular communications and 305 3597 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 1113.

Application/Control Number: 10/079,027

Page 5

Art Unit: 3676

Enoch Peavey

Art Unit 3676

Enoch Peavey
October 27, 2004